

**IN THE CLAIMS:**

1-14. (Cancelled)

15. (New) An optical switch, which appropriately optically connects optical fibers on an input side with optical fibers on an output side, comprising:

an array unit on the input side; and

an array unit on the output side,

the array unit on the input side having: an input side fiber array having signal input optical fibers aligned in a matrix with  $m$  rows and  $n$  columns ( $m$  and  $n$  are both natural numbers), at least one of the signal input optical fibers also serving as an adjustment optical fiber; a mirror array having tilt variable mirrors to deflect signal light beams from the signal input optical fibers and at least one fixed mirror to reflect an adjustment light beam from the adjustment optical fiber, tilt variable mirrors being aligned in the matrix with  $m$  rows and  $n$  columns, and the fixed mirror being off the matrix with  $m$  rows and  $n$  columns; a direction adjustment mechanism to adjust a relative direction of the mirror array with respect to the input side fiber array; and a positional adjustment mechanism to adjust a relative position of the input side fiber array and the mirror in a direction crossing an optical axis of the input side fiber array, such that the signal input optical fiber serving as the adjustment optical fiber being positioned so as to face the fixed mirror by the positional adjustment mechanism, then the direction of the mirror array being adjusted by the direction adjustment mechanism, and then the signal input optical fibers being positioned so as to respectively face the tilt variable mirrors by the positional adjustment mechanism,

the array unit on the output side having an output side fiber array having signal output optical fibers.

16. (New) The optical switch according to claim 15, wherein the direction adjustment mechanism is able to adjusting an angle about two axes orthogonal to the optical axis of the input side fiber array.

17. (New) the optical switch according to claim 15, wherein the tilt variable mirrors and the fixed mirror are formed from a same mirror substrate, so that reflection coat surfaces of the tilt variable mirrors and fixed mirror are on a same plane.

18. (New) The optical switch according to claim 15, wherein the array unit on the output side further has another mirror array having tilt variable mirrors to deflect the signal light beams from the mirror array of the input side fiber array toward the output side fiber array.

19. (New) The optical switch according to claim 15, wherein the array unit on the output side further has a fixed mirror that reflects the signal light beams from the mirror array of the input side fiber array toward the output side fiber array.